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Pekka Pakkila

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EXAMINER

ELHAG, MAGDI

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2617

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,327	Applicant(s) PAKKILA ET AL.	
	Examiner MAGDI ELHAG	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendments files 18 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of the Amendment and arguments filed 05/18/2010. In virtue of this communication, claims 1- 8 are amended and are pending in this office action.

Response to Arguments

1. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nissinen, et al. (WO 01/74101 A1), provided in the IDS submitted 08/23/2006 in view of Chen, Et al (US 7412265 B2).

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3. Considering claim 1, Nissinen teaches a method of operation of a portable mobile station in a mobile system (abstract; FIG.1) wherein the portable terminal device including “means for reading data from an object and for storing the data” (abstract, a portable mobile station and a bar code reader connectable thereto; Page 2 lines 2-5; Page 2 lines 27-31, the employee times and tasks performed are recorded in the mobile station); “and means for making the terminal device to operate as a terminal device of a mobile telecommunication network for sending and receiving data” (abstract, a portable mobile station connectable to the bar code reader; Page 5 lines 6-7). Nissinen does not explicitly teach the improvement of said device by adding a power conservation method as recited in the claim. However in the same field of endeavor, Chen teaches a method and system for power saving in a wireless including broadcasting **the schedule information** frame and therefore the **stations that should access the radio medium can only wake up at a specific access time to send and receive data and re-enter in power saving state after the data transmission** (abstract); wherein Chen further teaches “keeping the terminal device dominantly in a deep rest state, in which the means and for making the terminal device to operate as a terminal device of a mobile telecommunication network is totally passive and is activated on the terminal device own initiative for short periods for sending or receiving data” (abstract; Col. 4 lines 4-23, each mobile station periodically enters its active state (*from the power saving mode*) to receive a beacon frame with schedule information); Chen further teaches “wherein said activation for short periods and operation of the terminal device for sending and receiving data individually defined by control data which is specific to each individual

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terminal device and is received by the terminal device sent to the terminal device via the mobile communication network during said short periods and saved in the device” (Col. 4 lines 4-23, the point coordinator **periodically transmits the beacon frame with schedule information including plural sets of association identification and time slot information**. The association identification indicates that **there is duration for a corresponding station to receive/transmit data**. The time slot information specifies **the time that the corresponding station is in the active state for receiving/transmitting data**); Chen further teaches if there is a duration for a specific station to receive/transmit data, the specific station enters its active state to receive/transmit data in the time specified by the time slot information in the beacon frame (Col. 4 lines 17-23), therefore storing and using the received schedule.

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Nissinen’s mobile device by including a power saving method in which a receive/transmit schedule is sent to the mobile device, as taught by Chen, so as provide a dynamic power saving method wherein each station can be assigned a specific wake time as needed.

4. Considering claim 2, Nissinen in view of Chen further teaches “wherein the control data comprises data for activating the terminal device at a certain time whereby a connection may be set up to the terminal device for sending or receiving data (Chen: Col. 4 lines 17-23, if there is duration for a specific station to receive/transmit data, **the specific station enters its active state to receive/transmit data in the time**

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specified by the time slot information in the beacon frame and re-enters its power-saving state after the data transmission.

5. Considering claim 3, Nissinen in view of Chen further teaches “wherein the control data comprises data for activating the terminal to set up a connection for sending or receiving data in response to information included in a data read from an object” (Nissinen: Page 3 lines 17-19, the mobile station is so programmed that the act of reading a bar code will trigger a certain programmed action; Page 4 lines 9-13, reading a send code will automatically activate a short message transmission).

6. Considering claim 5, Nissinen in view of Chen further teaches “wherein the control data comprises data for denying the activation of the terminal device in response to information included in a data read from an object” (Nissinen: Page 3 lines 17-19, the mobile station is so programmed that the act of reading a bar code will trigger a certain programmed action; Page 4 lines 9-13, reading a send code will automatically activate a short message transmission), therefore reading a code other than the finish code will not activate the transmission. Also see Page 7 line 18-20, the application can give an incorrect Finish Code.

7. Considering claim 6, Nissinen in view of Chen further teaches “wherein the control data is sent in a so called short message or similar (SMS) which is stored in the mobile telecommunication network and is receivable by the terminal device when

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activated and a connection having been set up to the mobile telecommunication network” (Chen Col. 3 lines 5-6, Col. 4 lines 7-11, each station periodically enter active state to receive the beacon with the schedule data). Nissinen teaches the data is sent from the mobile device to a server using SMS. It is also well known in the art the mobile device can receive and process SMS messages.

8. Considering claim 7, Nissinen in view of Chen further teaches “wherein for sending and receiving the data, including the control data, a data transfer connection is set up in the mobile telecommunication network using a suitable protocol” (Nissinen: Page 8 lines 1-6, using SMS (*over cellular network using any of the known protocol such GSM, GPRS, CDMA...*) or other mobile communication data services; also see Chen: Col. 5 lines 45-58, using IEEE 802-11 standard).

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nissinen in view of Chen and further in view of Yamamoto, et al. (US 20020004385 A1) .

10. Considering claim 4, Nissinen in view of Chen does not explicitly teach “wherein the control data comprises data for activating the terminal device to set up a connection for sending or receiving data in response to starting the charging of a battery after a certain time from the starting”. However in the same field of endeavor, Yamamoto teaches a method in a mobile telephone where the mobile telephone comprises a detector for detecting that an external apparatus such as a battery charger is connected

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to the mobile telephone and a controller to transmit a message to the mobile communication network when said connection is detected (Col. 17; FIG. 1 and 4). Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Nissinen in view of Chen by including a detection circuit for detecting when a mobile telephone is connected to a battery charger, as taught by Yamamoto, so as to switch the mode of the mobile telephone (Col. 12).

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nissinen in view of Chen and further in view of Subramanian, et al. (US 7028197 B2) .

12. Considering claim 8, Nissinen in view of Chen teaches the station has an active state and a power saving state (Nissinen: Col. 5 lines 45-51). Nissinen in view of Chen does not explicitly teach "wherein the current consumption is minimized in the rest state so that essentially only an interruption clock of a processor unit of the terminal device is active". However in the same field of endeavor, Subramanian teaches a power management scheme (abstract); wherein in a sleep mode all the functional unit of the data processing system are inactive except for an "INTERRUPT CLOCK" signal provided to an interrupt control unit of the processor core (FIG. 5 and Col. 12 lines 30-42). Therefore, it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Nissinen in view of Chen by including a sleep mode in which all functional unit of the device are shutoff except for an interrupt clock, as taught by Subramanian, so as to efficiently manage the power consumption of the device.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAGDI ELHAG whose telephone number is (571)270-3187. The examiner can normally be reached on Monday to Friday 9:30 to 6:00 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kent Chang can be reached on 571-2727667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kent Chang/
Supervisory Patent Examiner, Art Unit 2617

MAGDI ELHAG
Examiner
Art Unit 2617